

THE
GRAZING COUNTRY
OF THE
DOMINION OF CANADA.

REPORTS OF TOURISTS, EXPLORERS, AND
RESIDENTS OF THE GRAZING LANDS
OF THE NORTH-WEST TERRITORY.

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INTRODUCTION.

HE country now known as MANITOBA and the NORTH-WEST TERRITORIES was granted by charter to the Hudson's Bay Company in 1670, during the reign of Charles II., as a hunting and trading ground, and was held by them and the North-West Company until 1870, when their rights were transferred to the Dominion. These facts form an intelligible reason why this part of the country has only recently become known as an agricultural region; for the disturbance of the lands would naturally have led to the interruption of the staple trade of the Company which controlled it for so many years.

Having been engaged in Stock-Raising and Agricultural pursuits in the Province of Ontario, Canada, I am frequently asked by persons who have taken a great interest in the North-West Territory, to give information relating to the *grazing lands* of the North-West, expressing a desire to know the severity of winters? what provision is necessary for wintering cattle on the grazing lands? the fertility of the soil? and other questions, which this publication is intended to answer.

The object is to offer only such information as applies to that

part of the country which is destined to become the greatest ranching or stock-raising country in the dominion of Canada. Among the reports is an extract from an address delivered at Winnipeg, October 10th, 1881, by the Marquis of Lorne, Governor-General of Canada. Also a communication to the *Scotsman*, September 29, 1881, from the Rev. Dr MacGregor, of Edinburgh, who accompanied His Excellency on his North-West tour; from Mr. W. H. Williams, special correspondent of *The Toronto Globe*, and statements made by other well-known authorities.

Reference is also made to the Hudson's Bay route. The practicability of such a route to Great Britain is of vast importance. *The voyage from Liverpool to Churchill is 64 miles shorter than to Montreal, and 114 miles shorter than to New York.*

JOHN R. CRAIG.

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*THE GRAZING COUNTRY
OF THE
DOMINION OF CANADA.*

EXTRACTS from a Speech delivered by HIS EXCELLENCY THE MARQUIS OF LORNE, GOVERNOR-GENERAL OF CANADA, at Winnipeg, October 10, 1881.

HIS EXCELLENCY, who was very warmly received, said :—

MR. CHAIRMAN AND GENTLEMEN,—I beg to thank you most cordially for the pleasant reception you have given me on my return to Winnipeg, and for the words in which you have proposed my health, and expressed a hope for the complete recovery of the Princess from the effects of that most unfortunate accident which took place at Ottawa. I know that the Canadian people will always remember that it was in sharing the duties incurred in their service that the Princess received injuries which have, I trust only temporarily, so much impaired her health. (Applause.) Two years hence, the journey I have undertaken will be an easy one to accomplish throughout its length for all; while at present the facilities of railway and steam accommodation only suffice for half of it. For a Canadian

official, knowledge of the North-West is indispensable. To be ignorant of the North-West is to be ignorant of the greater portion of our country. (Applause.) Hitherto I have observed that those who have seen it justly look down upon those who have not, with a kind of pitying contempt, which you may sometimes have observed; that they who have got up earlier in the morning than others and seen some beautiful sunrise, assume towards the friends who have slept until the sun is high in the heavens. (Laughter.) Our track, though it led us far, only enabled us to see a very small portion of your heritage, now being made accessible. Had time permitted we should have explored the immense country which lies along the whole course of the wonderful Saskatchewan, which, with its two gigantic branches, opens to steam navigation settlements of rapidly growing importance. As it was, we but touched the waters of the north and south branches, and striking south-westwards availed ourselves of the American railway lines in Montana for our return. It was most interesting to compare the southern mountains and prairies with our own, and not even the terrible events which have recently cast so deep a gloom upon our neighbours, as well as on ourselves, could prevent our kinsmen from showing that hospitality and courtesy which make a visit to their country so great a pleasure. (Loud applause.)

Beautiful as are the numberless lakes and illimitable forests of Keewatin—the land of the north wind to the east of you—yet it was pleasant to ‘get behind the north wind’—(laughter)—and to reach your open plains. The contrast is great between the utterly silent and shadowy solitudes of the pine and fir forests, and the sunlit and breezy ocean of meadowland, voiceful with the music of birds, which stretches onward from the neighbourhood of your city. In Keewatin the lumber industry and mining enterprise can alone be looked for, and here it is impossible to imagine any kind of work which shall not produce results equal to those attained in any of the great cities in the world. (Great cheering.) Unknown a few years ago except for some differences which had arisen amongst its people, we see Winnipeg now with a population unanimously joining in happy concord, and rapidly lifting it to the front rank amongst the commercial centres of the continent. We may look in vain elsewhere for a situation so favourable and so commanding—many as are the fair regions of which we can boast. (Loud cheers.)

Want of time, as well as a wish to see the less vaunted parts of the country, took me south-westward from Battleford, over land which in many of the maps is variously marked as consisting of arid plains or as a continuation of the 'American Desert.' The newer maps, especially those containing the explorations of Professor Macoun, have corrected this wholly erroneous idea. For two days' march—that is to say for about sixty or seventy miles south of Battleford—we passed over land whose excellence could not be excelled for agricultural purposes. Thence to the neighbourhood of the Red Deer Valley the soil is lighter, but still, in my opinion, in most places good for grain—in any case most admirable for summer pasturage, and it will certainly be good also for stock in winter as soon as it shall pay to have some hay stored in the valleys. The whole of it has been the favourite feeding ground of the buffalo. Their tracks from watering-place to watering-place, never too far apart from each other, were everywhere to be seen, while in very many tracts their dung lay so thickly that the appearance of the ground was only comparable to that of an English farm-yard. Let us hope that the *entre-acte* will not be long before the disappearance of the buffalo on the scenes is followed by the appearance of domestic herds. The Red Deer Valley is especially remarkable as traversing a country where, according to the testimony of Indian chiefs travelling with us, snow never lies for more than three months, and the heavy growth of poplar in the bottoms, the quantity of the 'bull' or high cranberry bushes, and the rich branches that hung from the choke cherries showed us that we had come into that part of the Dominion which among the plainsmen is designated as 'God's country.' From this onward to the Bow River, and thence to the frontier line, the trail led through what will be one of the most valued of our Provinces, subject as the country is to these warm winds called the 'chinooks.' The settler will hardly ever use anything but wheeled vehicles during winter; and throughout a great portion of the land early sowing—or fall sowing—will be all that will be necessary to ensure him against early frosts. At Calgary, a place interesting at the present time as likely to be upon that Pacific Railway line which will connect you with the Pacific, and give you access to 'that vast shore beyond the furthest sea,' the shore of Asia, a good many small herds of cattle have been introduced within the last few years. During this year a magnificent herd of between six and seven thousand has been brought in, and the men who attended them, and who came from Montana, Oregon, and Texas, all averred that their opinion of their new ranche

was higher than that of any with which they had been acquainted in the south. Excellent crops have been raised by men who had sown not only in the river bottoms, but also upon the so-called 'bench' lands or plateau above. This testimony was also given by others on the way to Fort Macleod and beyond it, thus closing most satisfactorily the song of praise we had heard from practical men throughout our whole journey of 1200 miles.

THE MARQUIS OF LORNE'S TOUR.

(From the Edinburgh 'Scotsman,' Friday,
October 14, 1881.)

Cattle Ranching and Farming.

As the country known as the Bow River country is already becoming the greatest ranching or stock-raising region in the Canadian Dominion, it may interest your readers to know something of the evidence which has been gathered on the spot from settlers themselves with regard to its suitability both for stock and agriculture. The country may be roughly described as a nearly equilateral triangle, whose base, stretching over two degrees of latitude—51 deg. to 49 deg.—is the Rocky Mountains, and its two sides, extending over two degrees of longitude—114 deg. to 112 deg.—the Bow and the Belly Rivers. A glance at the map will show that this is a well-watered country, numerous creeks and streams—some of them, like the Little Bow and Old Man's River, being of very considerable size—flowing clear and icy cold eastwards from the Rocky Mountains into these two main affluents of the Saskatchewan; while the best land seems to be along what are known as the Foot Hills at the base of the mountains, and along the banks of the principal streams, there is no portion of it that is not more or less good for stock-raising. Only there, too, can wood be found. The bench and prairie land is as void of timber as the country described in my previous letter. Lord Lorne, struck with this rather painful feature of the country, not only from an aesthetic but from an economic point of view, has expressed the desire that small nurseries of maple and other woods, and also orchard trees, should be made at the various excellent and

well-managed Government instruction farms throughout the region. It is most desirable that this should be done; and done at once. The persistent poplar wood, here as elsewhere, maintains its absolute supremacy ; a few birches and a tall narrow-growing bastard spruce—between a spruce and a pine—here and there struggling for existence. Timber in abundance is found in the hills, where there is a variety of pine, the predominating kinds being the white or bull pine, and the red pine, which is durable and as hard to work as the pitch pine. Trees are to be found, not very far away, 18 feet in circumference. The poplar stands the weather pretty well when barked, but, left with the bark on, it rots in a year or two.

So favourable are the conditions, climatic and otherwise, of the country we have now traversed, that men hereabouts speak of it as 'God's country.' With regard to the mildness of its winter climate there is a uniform and universal testimony. There are frequent cold snaps of great intensity, but they do not last above a day or two. It is quite unusual to have a persistent low temperature. After one of these snaps, Lieutenant Clark, of the Mounted Police, has played cricket on the 3d February. Mr Garnett, a gentleman of high English family, who, with his brothers, has taken a ranch at the very base of the Rocky Mountains, says that he had only one day's skating last winter. There is very little sledding in the country, as the snow does not fall to a sufficient depth, nor lie for a sufficient time. When it does fall it is in a fine powdery state, and is either blown away or melted in a day or two by the warm Chinook winds. Horses and cattle live without shelter on the open prairie the whole winter, and are in excellent condition in spring. The two things which one most frequently hears about are the Indians and the Chinook winds ; and there seems as little reason to doubt the existence of the one as the existence of the other. Of the extraordinary action of these winds in modifying the winter climate there is the amplest evidence. They seem to come with great suddenness, the thermometer sometimes rising in less than an hour 60, and even 70 degrees. It is difficult to ascertain with exactness the extent of country affected by them ; but, as far as I can gather, they extend from north of Fort Calgary to 100 miles south of Fort Shaw, in Montana, or over a country 400 miles in length, by fifty at least in breadth. As snow does not lie where they blow, in all the country affected by them cattle winter out, and feed and fatten on such herbage as they gather for themselves. One man long resident in the country says that he has felt his cheek as if half-frozen, and then, on a sudden, as if struck by a

hot blast. On asking him if he knew the reason why these winds, blowing, as they always do, either over the snowy peaks or through the valleys of the Rocky Mountains, should contain such warmth, he replied, 'I have asked that question five hundred times, and have never got a satisfactory answer.' Happily, a good thing is none the less good because we cannot quite explain it.

It is right to state that a considerable variety of opinion exists as to the wisdom of the Government in leasing for ranching for stock-raising purposes, at an annual and nominal rent of somewhat about a halfpenny an acre, hundreds of thousands of acres of land, much of which is admirably adapted for agriculture, even though the lease is only for twenty-one years, with a break every two years. There is much to be said on both sides. On the one hand, it is of great importance that this vast region of pasture land should as soon as possible be turned to useful purposes; and it is greatly better that it should feed herds of cattle than remain waste. On the other hand, it is contended, and, I think, with no small appearance of justice, that this ranching business is fatal to the rapid settlement of one of the very finest countries within the Dominion. The agricultural settler is placed everyway at a great disadvantage compared with the rancher. Though he pays little for his land, it is very much more than the other. But that is the least of his disadvantages. The best land for his purpose may be already disposed of to the rancher. What he does get must be carefully fenced in, and at considerable cost and trouble, to keep the rancher's cattle from his crops; and, worst of all, he has no free grazing ground for such stock as he requires. It seems quite clear that in a fertile country, intersected by a railway, the rancher must and ought to give place to the farmer.

The largest of the ranches in the neighbourhood of Calgary, and probably the finest in the whole country, is that leased by Messrs Cochrane, M'Eachran & Gibb, and which was granted to them only in April last. It extends for twenty-five miles west of Calgary, towards the Rocky Mountains, and has an average breadth of ten miles. It is intersected right in the middle along its whole course by the Bow River. One could hardly pick out of the Dominion a fairer or more fertile bit of country, a finer river to settle by, or a nobler outlook than the snowy summits of the Rocky Mountains. One is glad that so good a farm has fallen into such excellent hands. Mr Cochrane has the name of being one of the largest, the most enterprising, and the most successful stock-raisers in the world; and the high-class cattle which he is certain to rear will be of advantage to the whole

Bow River country. By the end of October they will have 7200 head of cattle on their ground, mostly brought from Montana and Oregon, and they expect to have 20,000 when their stock is complete. The cattle travel at the rate of ten miles a day, feeding as they go on the rich herbage found all the way through, and come in in excellent condition. Major Baynes and Mr Barter, who were in charge, gathered a herd of 2800 close to our camping ground, that Lord Lorne and his friends might have an opportunity of examining them, and of admiring the dexterity with which the herders, who are all armed to the teeth, select a strong wild bull from the herd, and bring him to the ground with their lasso. Your correspondent, with Major Chater, one of the staff, were to have crossed the river in a buckboard, to witness the operation; but wisely forebore, and contented themselves with such a view as could be got on the safe side. Their caution probably saved them from much worse than a ducking, as another buckboard which tried to cross was carried down by the swift stream, and the mounted policemen who were in it had to save themselves by swimming. Along with the cattle there was a band of 26 horses from Montana, which arrived the day before, and which were also in good condition. It was a much more difficult business, owing to their swiftness, to lasso them; and the first attempts were unsuccessful; but at last, after several exciting chases, one was caught by the head and by the heel and brought to the ground. As yet they have only fifty thoroughbred bulls, but they expect to have about 300 in all. Among the thoroughbreds are Hereford, polled Angus, and Durham, all under one year old. They came from the eastern seaboard by rail and steamer to Fort Benton, and thence on foot to Calgary. The polled Angus stood the long journey best, and the Hereford next, but they all came in in good condition. This is the first attempt to bring high-bred stock into the country. Over their big farm they will have four separate posts, and will, as much as possible, keep distinct breeds of cattle at each post. So little labour will this vast herd require that, when everything is in order, it is expected that twenty men will be able to accomplish all the work on the ranch, and most of these will be half-breeds. The big farm is surrounded by natural ramparts, in the form of mountains, creeks, and rivers, the rivers being as impassable for cattle in winter as in summer, owing to the smoothness of the ice, which cattle will not face. The wages of white men and of half-breeds who know about herding is 40 dollars a month. Once the cattle winter in a place, they never seek to leave it. The two busiest times in the year are spring and autumn, when

what is known as the 'rounding up' takes place. All the cattle, in a circuit of as many as 200 miles, are rounded in and driven into corrals. Each cow has its owner's brand, and the ownership of the calves is known by the cows which they follow. The calves are branded, and the whole turned loose again into the prairie for another half-year. These branding seasons are not without danger, even to experienced herders. Sheds will be erected this winter for the thoroughbred bulls and stallions until they get innured to the climate. There is ample wood on the ranch for all building purposes. Other ranches have been taken close by that which has now been described, and in a short time it is expected that the best land will be all taken up.

Having spoken of the stock-raising capacity of the country, I may now say a word as to its agricultural qualities. Close by Calgary is Fish Creek, where a Mr Glen has settled. He is favourably noticed for his pluck and enterprise in the book *From Ocean to Ocean*, and as he has been seven years in the country, his evidence is of some value. He has built for himself one of the best dwelling-houses in the country, at a cost of 1800 dollars, and, by planting trees round it, has set an example, which has much need to be followed in this woodless land. He has built, too, the best well which I have seen in Canada, its excellence being due to his mining experience. I never saw finer vegetables than I saw here. Beet, parsnips, turnips, cabbages, and potatoes had reached perfection. He had a field of well-filled oats, which on measurement were 4½ feet high, and many stalks 5½ feet. We were curious to count the produce from one self-sown grain of oats—an operation in which Lord Lorne took part. There were thirteen stalks to the stool, and an average of 207 grains to the stalk, or 2691 grains in all. His wheat crop was also excellent. These crops grew on the river bottom, but those on the benches, or natural prairie, were just as good. During seven years he has only once suffered from frost; having lost half a crop last year, though first followed by a snowstorm, which came as early as 24th August. There seems no doubt whatever that the occasional occurrence of these early frosts is one of the dangers which agricultural settlers will have to face. They are most erratic and arbitrary in their action. I have seen one-half of a potato field wholly destroyed, while the other, for no explainable reason, was quite untouched. Another danger, still less frequent and much more limited in its range, is hailstorm. On our first day's journey south from Calgary, we passed a camp of ten Government surveyors,

who, a day or two before, and in the country we had just crossed, encountered a hailstorm of such violence that, had it lasted for ten minutes more, Mr Kennedy, at the head of the survey, asserted that not a man of them would have been left alive to tell the tale. They had no place to run to for shelter, and they, therefore, threw themselves with their faces on the ground. In trying to protect his head with the bag in which he carried his note-books, he had his hand severely cut. His survey instruments were rendered useless. His body and that of the men who were with him were black and blue, as if they had been hit by heavy stones. Next day pieces of ice were picked up two inches in diameter.

Such phenomena may seem incredible. But we had, a few days after, a confirmation of the evidence regarding the severity of such storms. We were examining the Instruction Farm on the Reserve of the Peigan Indians, some seventy miles away, and while admiring the newly-built house of the instructor, Mr Kettle noticed that his windows were all smashed. He told us that it was the hailstorm. 'But why do you not protect them?' we asked. 'Protect them,' he replied, 'I would not face a hailstorm for the best windows ever made.' On another Indian farm at Edmonton, more than 200 miles further north, a fine field of wheat, 160 acres, was also destroyed. I have no reason to suppose that the whole stretch of country between these limits was even in a slight degree visited by hailstorms, which, I have been assured, are always, at least in a destructive form, confined to very limited areas. But it is right to state the facts as I know them, that the dark side of the picture may be presented as well as the bright.

Close by Mr Glen's farm is the Indian Supply Farm, managed by Mr F. J. M'Hugh. It is fine haugh land, on the Bow River. They began work for the first time in the fall of 1879, and have 470 acres broken, and 217 under crop, and 3000 partly 'bottom' and partly 'bench' land fenced in. They will have 500 under crop next year, and will raise all the seed they need for themselves and for the Blackfeet Indians. Here I saw horses and oxen at work ploughing a mile-long furrow, and turning over the sod which had been broken in spring for fall sowing. The soil was a rich sandy loam, as black as tar. It is as rich in the bench as in the bottom or haugh. As I looked, I could hardly help indulging and expressing the wish that some of our farmers at home, who are struggling with heavy rents and bad years, could only see this country and judge for themselves. Mr M'Hugh and Mr Dewdney, Chief Indian Commissioner, agreed

with Mr Glen that 'there is any quantity of good agricultural soil,' that there is 'no doubt whatever that men acquainted with farming could make it pay well,' and that the way to meet the difficulty about the early frosts is to have the seed early in ; and as voluntary self-sown crops are always best, that the right thing is to sow the seed sufficiently late in the fall to prevent it springing. It seems an established fact that the seed never suffers, even from frost 50 degrees below zero. There is great difficulty in getting labour. Unskilled half-breeds get 30 dollars a month. The yield of wheat per acre, tolerably well cultivated, was given at 50 to 60 bushels, oats at 40, and barley at 75. Root crops do splendidly. For want of labour, the crops are gathered and stacked like hay. The oats on the soil were 4½ feet high.

To present the evidence as much as possible in one hour's travel. Above 100 miles south to Fort Macleod the country is not at all equal to that further north ; but let us hear the evidence of Mr John M'Farlan, who came originally from County Cavan, Ireland. He settled five years ago two and a-half miles to the east of Fort Macleod, on the south branch of Old Man's River, and had next to nothing. He has now 1000 acres fenced, 100 under crop, 300 head of cattle, and 20 work horses. He expects his crops to realise this year 3500 dollars. He has 35 cows, and sold last year 4000 lb. of butter, getting 50 cents the pound in summer, and a dollar (4s. 2d.) a pound in winter. He has a ready sale for all his produce. He tried as an experiment last year to raise timothy hay on the bench lands, and it turned out 4 tons to the acre. He employs one man all the year round, and three extra men during summer. Good farm labourers get 35 to 40 dollars a-month, with board, and are hard to get.

This is the only evidence which I have given second hand, but it comes from quite a reliable source. Let us go some thirty miles west, till at Kyleakin, the residence of Colonel Macleod, we are almost beneath the snows of the Rocky Mountains. The country selected is known by the ugly name of Pincer Creek, because some whisky seller, possibly under the influence of his own merchandise, dropped his pincers into the pretty stream, and could not find them. 'Why,' the question has been often asked of the settlers, 'should their beautiful little river, as is the case with almost every creek and river we crossed, be disfigured for all time by such a name?' There are some ten settlers already in this one creek ; three of them nearest the mountains are young English gentlemen of high family, who like the country greatly, and are doing well.' All ranch more or less. Mr Ives,

who is taking charge of the 1000 Government cattle now yet handed over to the Indians, states that he made no provision for them last winter, which was a most severe one, and he did not lose one. In the Fort hills, at the base of the Rockies, where the cattle go in the winter, the wild timothy and wild pea-vine and vetch grow up to the waist. Little rain falls after August. Never more than a foot of snow falls at a time, and never lies more than a week. It falls in a dry, powdery state, and is swept by the wind into the coulees or hollows. He thinks that small agricultural holdings would be better for the country than large ranches, but a good deal of the land about is not good arable land. He thinks there will be early frost when the land is better cultivated. For instance, they failed at first to raise wheat in Montana, but they now succeed. He approves of fall sowing. At the Government Supply Farm they had this year 80 acres of volunteer oats—*i.e.*, self-sown—the third or fourth crop of oats in succession on the same soil, and it was the best crop they had. The land was never touched. Mr Mordent recently travelled all over Montana, and thinks this is a far better country, with a far richer feed; an opinion in which your correspondent, having travelled through it, perfectly agrees. Though in many places there is good arable land, he does not think that agriculture to a great extent would be so satisfactory as stock-raising, because of the frost, and yet I plucked, almost at random, from a crop sown on the sod, oats with thirty-five stalks to the stool, and seventy-five grains to the stalk. I saw also a fine field of Fife wheat, the seed of which he got from Ontario.

The last witness whom I shall bring forward is Mr Bruce, the intelligent manager of Government supply Farm, No. 23. He has 300 acres broken in, 4 acres of wheat, 50 of oats, and 95 of barley. He expects twenty-five bushels of wheat to the acre, and thirty-five of oats—the seed was bad—the finest crop is barley, and roots which cannot be beat in the world. Oats are pretty safe if sown in time, but you can't be quite sure of wheat, although with fall sowing the danger of the crop not ripening before frost would be greatly diminished. He does not think that the higher bench land will do for agriculture, as the soil is thin, and the rainfall small. He is decidedly of opinion that the country is better for stock-raising than for agriculture. It is a windy land. But for the wind blowing off the snow, cattle could not winter out. He had beef driven off the prairie in February, which was too fat to eat. Horses do fully better than cattle in wintering out, especially when there is any snow on the ground. He would never think of cultivating hay, as the natural grass is best, and

is boundless in extent. Wheats and oats taken from the field show the former eighty-five stalks to the stool, and fifty grains to the stalk; the latter, with stems like reeds, showed forty-five stalks to the stool and 213 grains to the stalk.

I have thus given facts and opinions regarding the Bow River country as I have got them, leaving your readers who are interested in the subject to draw their own inference as to its suitability for settlement. Of one thing I think there can be no doubt, that the soil and the seasons improve as you go northwards.

Your space will not permit me to give any detailed account of Lord Lorne's progress southward. Since leaving Calgary on the 15th, we have travelled 400 miles through a most interesting country. The last and most interesting of all the Indian pow-wows was held on the 19th at Fort Macleod.

'Toronto Globe,' October 21, 1881.

GOVERNOR-GENERAL'S CAMP, FORT CALGARY,
September 12,

THIS morning we were early on the move, Colonel Irvine having decided that with the aid of the fresh horses Calgary could be reached in one hitch. We rattled along at a lively pace, the fresh horses hauling the ambulance and some of the loaded waggons in grand style. Blanche and Touchwood kept up to them without difficulty, and Mr Dewdey's buckboards were also well to the fore, but the waggons drawn by horses brought through by Battleford made but sorry progress. Five or six miles east of the Fort I overtook Captain Perceval and Mr Sydney Hall walking beside their buckboard and doing their best to keep their thoroughly 'played out' Broncho on the move. Luckily I had Punch tied by the halter to the back of my waggon, and having harnessed him to the buckboard in the place of the ~~dead~~ Broncho, they were enabled to jog along for the remainder of the distance in company with the rest of the party. Late in the forenoon we reached the ~~verge~~ in the high prairie bluff overlooking Fort Calgary, and of all the charming pictures we have seen on the journey, this was generally admitted to be by far the most beautiful. The valley of the river at this point is much wider and the stream more tortuous than at Blackfoot crossing; indeed, the valley of Bow River and that of one of its chief tributaries, the Elbow, unite in a broad, low plain, and the great rich valley studded wit' grey poplars or cottonwood, wild cherries, and willows, looked

like some fancifully arrayed plantation. A slight frost had nipped the leaves of many of the trees, so that the lovely autumnal shades of lemon and gold and orange and crimson contrasted richly with the fresh summer verdure of the untouched trees. But after all, it was not the foreground of the picture that constituted its most charming feature, for in the background rose the giant peaks of the Rocky Mountains in indescribable splendour. Above and beyond them lay a sky of deep soft blue, overhung with cloud festoons of delicate grey and light dove colour, from which some little feathery fragments had broken off and drifted down in dainty cloud islets into the blue zone below. Against this rich coloured background, and in sharp relief, rose the wild and rugged outlines of the mountain range, with its snow-clad peaks glittering in dazzling white as the sun lit up their gleaming slopes. Here were ruined towers and battlements and pyramids cut and polished in alabaster, as if some great city realising the grand dreams of the Apocalypse had been hurled in ruins upon the plain. Below, as if to veil their glories from the vulgar gaze, hung a dark blue vapour, like a thin curtain of silken gauze concealing the foot of the hills and the rugged mountain slopes as yet uncovered with the snowy mantle. On the eastern face of one of these great white nameless peaks of pyramidal form hung a gigantic cross of dark steel-grey, looking grim and cold in the brightest sunshine. This peak must have been full sixty miles away, and still the cross at its summit looked as large, regular, and well defined as would a twelve-foot cross of heavy timbers painted in dark steel-grey, and hung against a white background two hundred yards away. To the north of this rose another and still higher pyramid of spotless white, and on learning that it had not yet been named, Dr MacGregor, with the consent of His Excellency, named it 'Lorne Mountain.'

FORT CALGARY

was once one of the regular posts of the Mounted Police, but it has since been reduced to an outpost, and only a non-commissioned officer and two constables reside within the stockade. The Hudson Bay Company Bow River Post is located here, and the American traders, J. G. Baker & Co., do an extensive trade here with the ranchers and Indians. The ford being both deep and swift, it was deemed advisable to ferry the passengers and baggage in the boats which had been built for the use of His Excellency, when it was intended that he and his party should travel by water from here to

the elbow of South Saskatchewan, instead of returning by the way of Helena as they have since determined to do.

THE CAMP

here is nearly or quite a mile and a-half from the ford, and in a beautiful plateau on the Elbow River. The camp commands a charming view of the Rocky Mountains, and is in all respects the most beautiful that we have had on the whole journey from Winnipeg. The rows of tents and waggons are laid out so as to enclose a parallelogram with mathematical precision, and the little raised plateau, the whole of which is thus enclosed, is almost as smooth and level as a billiard table. In this whole region, so far as I have been able to observe,

THE SOIL

consists of a very pliable rich black loam, extremely productive, and deep enough to be practically inexhaustible. We are now about 1000 miles west of Winnipeg, and after having carefully noted the character of every mile of country through which we have travelled, I can only say that I have not seen an acre of land anywhere along the route that is not likely sooner or later to be of value either for agricultural or grazing purposes. The lack of fuel is, for the present, a serious drawback; but, unless I am much mistaken, coal will be found in such quantities and so distributed throughout the country as to make fuel easily obtainable in any part of the North-West, while the construction of railways will ere long make the cost of building material very much less than it is at present.)

GOVERNOR-GENERAL'S CAMP, FORT CALGARY, 13th September.

TO-DAY the Governor-General and party remained most of the time in camp resting after their long journey. A special messenger was despatched this morning with letters for Canada and England; but, contrary to expectation, His Excellency has as yet received no mail, though one is hourly expected.

To-day

JOHN GLENN,

one of the pioneers of this region, drove into camp with a lot of samples of the grain and root crops grown on his ranche at Fish Creek, some seven or eight miles south of this fort, and on the road

to Fort MacLeod. He underwent a rigid cross-examination at the hands of His Excellency, Dr MacGregor, and others, and the facts elicited may be summed up as follows :—Mr Glenn, who is a native of Curragh Fen, near Galway, Ireland, has been on this side of the Atlantic for many years, having spent some time in Texas, Utah, Montana, etc. He has travelled from the Rio Grande to Peace River, but is very sure he likes this region better than any he has yet seen. He says that the greatest trouble here is the want of labourers.—Last year he had to go on seeding till the 10th of June, which was, of course, much too late. If he could have had his spring's work done promptly last season, he is certain he would have had his crops all in before the 24th of August, on which day there came a great surprise in the shape of a heavy snowstorm. He has been located on Fish Creek since 1875, and has now 40 acres under cultivation, and 150 acres fenced. As a proof that he considers the country eminently suitable for agriculture, he stated that he had 1200 dollars invested in agricultural implements instead of live stock. He has one neighbour, a French Canadian, who began ranching this year, and is doing well. He thought the route we had taken from Battleford was not a favourable one for seeing the best part of the country. Had we gone farther north we would have seen land as good as that about Bow River. Like other settlers on the prairie, Mr Glenn has suffered considerable inconvenience from the want of timber. Regarding the productiveness of the land in this region, both Mr Glenn's evidence and the samples of produce he brought furnished the most satisfactory proof its extraordinary richness. He had raised fifty-seven bushels of oats to the acre, and his barley has turned out as high as seventy bushels to the acre. His wheat, which was grown from bad seed, did not turn out as well as usual this year, but still the sample he showed us was rather better than the average met with in Ontario. The samples of root crops and general produce which he brought in were of the best quality, some of the cabbages being equal, if not superior, to any I have ever seen exhibited in Ontario. Out of the sheaf of barley brought in by Mr Glenn, three heads were selected at random. The first turned out 74, the second 59, and the third 76 well filled, fully developed kernels. His turnips which were planted on the 1st of June, furnished fine samples, weighing from 12 to 16 lbs. Mr Glenn says that his crops are not at all exceptional, and that other ranchmen are doing quite as well as he is. He assured us that a great deal of the talk about summer is due to the representations of cattle

ranchers who desire to monopolise the whole region for themselves. He complained that, as a rule, the Bow River country did not get fair play in being represented to the public. 'Only last week,' said he, 'Mr Dawson, the Government surveyor, who, I am told, is talking against this country as an agricultural region, drove past my place and never so much as halted for a moment to look at or inquire about my crops : and yet, I suppose, he will go down and say this country is not fit for settlement.' Mr Glenn said that horses did well here in the winter, the frozen buffalo grass being as nutritious and as good for them as well-cured hay. *He said that he had seen a steer killed last March that had picked his own living all winter without having been fed a mouthful, and yet he proved the fattest beef he had ever seen killed.*

LETTERS FROM HOME.

To-night His Excellency received a well-filled mail bag of letters and newspapers, and a telegram announcing the death of Senator Brouse. At dinner he spoke in the highest terms of the deceased Senator, stating that his loss to the Senate would be irreparable. Among the English papers was the *Gazette* announcing Captain Chater's promotion, and accordingly 'Major Chater' was heartily congratulated by all present. To-day I met Mr George Scott, an Ontario farmer, late of the township of Nissouri, near London, Ontario, on his way to the Cochrane ranche, fifteen miles above here. He is delighted with the country.

GOVERNOR-GENERAL'S CAMP, FORT CALGARY, 14th September.

THIS morning Mr Barter and Major Bains, from the Cochrane ranche, called at the camp and were subjected to a somewhat lengthy examination as to the character and nature of the enterprise in which they are engaged, and as to the capabilities of the Bow-River country generally. Regarding the former they may be supposed to know a good deal, of course ; but they were evidently inclined, being ranchers, to belittle the agricultural resources of the country. I do not mean to say that their reports were altogether unreliable in this direction, but when I have the unquestionable proof offered by John Glenn in the shape of samples of produce, to weigh in the balance against their simple 'say so,' I must confess a very strong disposition to give the ocular proof the preference.

The facts they furnished about

THE COCHRANE RANCHE

were substantially as follows :—The country under the influence of the warm west winds blowing from off the tidal current through the passes in the mountains, and keeping the snow melted off the prairies for nearly the whole winter, is about twelve miles wide in the vicinity of Fort Calgary, but further south it becomes much wider. These warm west winds are called 'Chinook' winds, after an Indian tribe occupying a portion of the western slope of the Rocky Mountains.

The Cochrane ranche consists of 100,000 acres, all under the influence of chinook winds. Within this area a foot depth of snow has never been known to lie more than three days at a time, for the first west wind was sure to thaw it with wonderful rapidity. On the ranche they have now about 6000 head of cattle, including 55 good bulls. It is intended, however, by the end of October, to bring the herd up to 7200. The cost of Montana and Oregon cattle (the kinds brought in here) is about 30 dollars per head, as the transport from Montana is rather slow and expensive, the average day's march being only about ten miles. There are three kinds of bulls employed on this ranche, Shorthorns, the Herefords, and Polled Angus. There is plenty of timber easily available here, but as yet nothing worth mentioning has been done in the way of building, on account of the difficulty of securing labourers and mechanics. There is plenty of room for farm labourers in this country. Good handy 'cow boys' receive 40 dollars per month and board, and half-breeds from 35 to 40 dollars, with board, of course. City-bred men are of little use here until they have learned to rough it and 'got into the ways of the country,' but for farmers' sons and energetic farm labourers the opening is an excellent one. The sort of life they lead here is very different from that of farm labourers in Ontario. A great deal is done here on horseback. It is unwise to go near a herd of Montana or Oregon cattle on foot, and those who have had most experience with them will always be the last to venture in doing so, as the danger of being trampled to death merely to satisfy the curiosity of the cattle is altogether too great. There are also in the Cochrane ranche 260 Broncho mares, which it is intended to breed to thoroughbred stallions. They also intend to put large numbers of sheep in the range. At this point in the conversation Dr MacGregor asked one of the gentlemen what he thought of the agricultural capabilities of

the Bow River country. His reply was particularly unique in its character. He said, 'There is plenty of excellent agricultural land'—his companion here gave him a very peculiar glance—and he finished the sentence by adding, 'five or six hundred miles from here.' In the afternoon His Excellency and some of the party drove up to see the Cochrane ranche, and witness the operation of

LASSOING CATTLE,

and to-night preparations are being made for a start to Fort MacLeod. Commissioner Irvine having kindly offered me transport southward, I shall leave my Kyuses and Peter here, till I return on the way to Edmonton.

GOVERNOR-GENERAL'S CAMP, HIGH RIVER, *en route* from Fort Calgary to Fort MacLeod, September 15.

THERE has been but little to note in to-day's travel. All day we have been following a well-beaten trail running through what I should take to be the very choicest of moderately undulating prairie land. The badgers usually dig their holes to a depth of several feet below the surface, I believe; but wherever I have seen a badger hole to-day, even on the lightest looking uplands, I have seen nothing but the richest black loam thrown out of the excavation." The rich and abundant growth of buffalo grass also offers the most satisfactory proof of the extraordinary wealth of these great stretches of prairie. As a stock country, I do not see how the region through which we have been travelling could be surpassed, for besides possessing a rich roll under the influence of the warm chinook winds that blow through the passes in the Rocky Mountains (whose dark, rugged slopes, shrouded in their blue haze, and whose snow-clad peaks, glittering in unclouded sunlight, loom up on our right like a wall of steel with turrets and pinnacles of burnished silver and gold), it is abundantly supplied with

LIMPID MOUNTAIN STREAMS

of the purest water. In the forty miles we have traversed to-day we crossed the following never-failing, swift-running streams of cold, sweet water, fresh from the snows of the 'Rockies':—Elbow River, Fish Creek, Pine Creek, Sheep Creek, and High River. All these are streams of considerable magnitude, and they and their small tributaries wind about among the valleys so as to water a very great

extent of country. There are two large ranches being established on High River, and near Fort Calgary we passed Captain Denny's ranche, which fronts on Bow River. I am inclined to think there will yet be trouble in settling the respective claims of many of these ranchers, but I shall deal with this subject more fully when I shall have had the opportunity of learning a little more about it.

**GOVERNOR-GENERAL'S CAMP, WILLOW CREEK, en route
Fort Calgary to Fort MacLeod, 16th September.**

THE country through which the trail has led to-day was so like that seen yesterday, that it is quite unnecessary to describe it. The soil is extremely rich and the country is certainly admirably adapted either for agriculture or to stock-raising. The noon camp was at Mosquito Creek, and to-night an excellent camp-ground was selected on the east bank of Willow Creek. Both of these streams are pure and limpid as the finest trout streams or spring creeks in Ontario. Several other fine sweet water sloughs, coulés, and small mountain streams were passed on the way. Several of the horses succumbed in the march to-day, but all were finally brought into camp, and will probably recover if carefully handled.

FORT MACLEOD, 19th September.

THE M'FARLANE RANCHE.

THIS morning I drove down to the M'Farlane ranche, about two and a-half miles east of this place, and after looking over the farm, grain, stacks, and dairy, I had a conversation with Mr M'Farlane relative to his operations in this region. Joseph M'Farlane is a native of the county of Cavan, Ireland. As soon as I told him the nature of my business I found myself on good terms with Mr M'Farlane. He thought a great deal of *The Globe*. His first acquaintance with it was through reading in the *Weekly Globe* a cure for mange in horses. He tried it on a kyuse, and found it effected a wonderful cure, and he afterwards found it equally efficacious with every horse and pony upon which he tried it. Mr M'Farlane, after spending eight years in the mining districts of the Western States, came to his present location five years ago, without any capital whatever, except a very small herd of cattle. To show as the result of five years' operations here, he has, besides considerable money at interest, 1000 acres of land fenced on the south bank at Old Man's River, 100

acres of which are now under cultivation, 300 head of cattle, and 20 head of horses. His crop this year, consisting of wheat, barley, oats, and potatoes, is already bargained for at about the following prices per pound :—Wheat, 5c. ; barley, 4c. ; oats, 5c. ; potatoes, 3½c. and 4c. The cash proceeds of this crop will be between 3500 dollars and 4000 dollars. In addition to this and the natural increase of his herd, Mr M'Farlane's dairy of thirty-five cows produces 4000 pounds of butter annually, and this butter sells in summer for 50c., and in winter for 1 dollar per pound. The demand for all sorts of farm produce, even at the prices above quoted, is far in excess of the supply. Beyond the cost of agricultural implements, Mr. M'Farlane's outlay consists of the wages of one man all the year round and three extra men during the summer. Good farm-labourers receive from 35 dollars to 40 dollars per month with board, and Mr M'Farlane tells me that he has a great deal of trouble to secure good men at the figures I have quoted. This year Mr M'Farlane's crops will average about as follows:—Wheat, 25 bushels to the acre; barley, 33; oats, 50; and potatoes, 200. All root crops have done extremely good on this ranche, and there is an excellent market for produce of all sorts. Mr M'Farlane's cattle are mostly from Montana, and he has found the cows more than ordinarily good for dairy purposes. Indeed, the average farmer or stock-raiser would be greatly surprised to come upon a herd of these Montana cattle feeding on the rich bunch grass in this region. Instead of the long-legged weedy-looking brutes that in former days were wont to be driven into Canada from Texas, he would find a handsome-looking lot of animals that would readily pass for thoroughbred shorthorns, and very high-class grade cattle, and instead of looking lank and hungry, they would look very much like stall-fed animals out for a few hours' exercise. Indeed, no one who has not seen them would believe the wonderful change that has been effected in the character of these wild cattle, through the introduction of highly potent bulls from the closely inbred shorthorn families. As an evidence of the extraordinary adaptability of this region for stock-raising, Mr M'Farlane informed me that though last winter was one of the most unfavourable for cattle that had been known here for ten years, a cow which had run out, and picked her own living all winter, was driven in off the range and killed by him in March, and though she had never had a pound of feed beyond what she had picked up in the prairie, she was as fat as any choice stall-fed beef he had ever seen. Her kidneys, and the fat adhering to them weighed no less than ten pounds, and after all she was by no means an exceptional animal in

the herd. Mr M'Farlane also keeps a large number of hens, and all the eggs that he does not require to use in his own house sell readily at a dollar a dozen. He has also tried the experiment of sheep-raising on a small scale, and the results so far have been very satisfactory. Last year his sheep clipped an average of 9 lbs. of excellent wool. His horse-keeping costs him next to nothing, as in his little band of twenty he has mostly kyuses and bronchos that pick their own living and keep fat on the prairie all winter. From all that I can learn, I do not think that the case of Mr M'Farlane is at all an exceptional one, or that he has done anything that any intelligent settler who has plenty of pluck and industry might not accomplish in the same length of time; and yet I would like to know in what part of Old Canada the same results could be reached by a man similarly situated, in the same length of time.

JOTTINGS IN CANADA.

'Weekly Scotsman,' Nov. 26, 1881.

OWING, it is believed, to the fact that the Rocky Mountain gorges here freely admit the warm winds of the Pacific, this region enjoys a climate much milder than that of countries many degrees further south which happen to be differently situated. The whole valley is embraced within the isothermal of 60 degrees mean summer temperature, which defines the limit of cereal growing, the line of 65 degrees sweeping up into the great bend of the river, to which it goes very close at the elbow. With an average winter temperature 15 degrees higher than that of Western Ontario, it is said to have but a slight snowfall, so that cattle can range about during the coldest weather, and keep fat on the prairie grasses. Water melons and cucumbers ripen freely in the open-air, and wheat of superior quality has been grown on the west end of Lake Athabasca. Turning southward, the head waters of the North Saskatchewan are to be classed as fine grazing ground. In the immense tract lying between North and South Saskatchewan there is much good soil, though some parts described as arid or alkaline. The eastern slopes of the Rocky Mountains, drained by the beautiful Bow River, are attracting special attention as a location for cattle ranches, and during the past year selections of land for this purpose have been made on behalf of gentlemen in Ontario which will involve an expenditure of over a

million dollars. The climate of this fine park-like country is stated to be so mild that cattle can range throughout the winter with little or no shelter. I have heard, for example, that the draught oxen belonging to the Fort Benton Trading Company are annually, at the close of the season, driven 300 miles to winter on Bow River pastures, where, foraging for themselves, under the charge of a herdsman, they thrive so well as to be found, when spring comes, in capital working condition.

THE GARDEN OF CANADA.

Statement of a Resident.

(To the Editor of the *Globe*.)

SIR,—A veritable paradise of flowers is presented to the eye of the traveller as he passes over the tinted carpet of nature that adorns the prairies of the Bow River district. In full view of the Rocky Mountains is situated the village of Fort Macleod, close to which is some of the finest farming land of the great North-West, and which affords to an unlimited extent stock ranges which far surpass those of Montana, Dakota, and Minnesota. Cattle winter out and do well. Stockmen in a few years become independent, while farmers become rich and prosperous. The true reason why stock can thrive so well during the winter so close to the mountains is, that the chinook winds, which come from the Pacific coast, melt the snow—and what was one or two feet of snow, will, owing to this cause, be taken away in a day, sometimes in less than an hour. The pasture is excellent long grass full of vetches; and every kind of luxuriant fodder for animals is to be found on these stock ranges. This is verified by the fact that men who have travelled over the North-West and several of the States famed for cattle-raising declare that nowhere have they found such pasturage, climate, and extent of country so well suited for stock purpose as this section, now well known as the Chinook region.

Here in this district is the stock ranche of the Cochrane Company, the Government herd of excellent stock cattle, and the fine band of brood mares owned by Government, besides numerous bands of cattle belonging to private parties. Wild hemp and flax may be seen growing luxuriantly, and wild flowers of every hue and kind grow

in abundance. Never have I seen such a variety in so small a place, literary strewn by the hand of nature. With regard to the capabilities of the soil for farming, facts are abundant. Excellent crops have been raised by farmers of experience, and their united testimony is sufficient proof that the soil is good, the climate very favourable, and the products beyond expectation. Here are found varieties of soil, suitable for different kinds of crops. There are no taxes, and no rent, but land in abundance for settlers to occupy. A vast extent of territory with healthy climate, rich soil, and bearing on her bosom fortunes for the dissatisfied drudging farmers, the toiling tillers of the soil, the young men of Canada and the States who are desirous of making homes for themselves, opens wide her arms to embrace them and make them worthy sons of the great North-West. What we need is a better knowledge of this district to be given to the people, and then many hundreds will follow those who are coming in to make homes and fortunes in this Eden of life.

SAMSON SING.

Sutor Villa, Bow River District, August 1881.

CATTLE RANCHING IN CANADA.

The Bow River Enterprise.

LEARNJNG that Dr M'Eachran had just returned from the Bow River country, where he and a number of other enterprising Canadian gentlemen, including Hon. Senator Cochrane and Mr J. P. Wiser, M.P., have been establishing an extensive cattle ranche, a member of the *Herald* staff called on the doctor yesterday to learn his views regarding the probable success of the venture: Dr M'Eachran stated that the company had taken up 100,000 acres of grazing land on the Bow River, about twenty miles north of Fort Calgary, and near the eastern base of the Rocky Mountains. They have already sent in 700 head of cattle, including 58 thoroughbred imported English bulls. These bulls were taken by the Northern Pacific Railway to Bismark, on the Missouri River. From thence they were conveyed by steamboat to Fort Benton, and then driven about 400 miles across the plains to the ranche.

Q. What do you think, doctor, of the prospects of the undertaking?

A. There can be no doubt that the district comprises good grazing land. There can never be any scarcity of grass and water.

Q. Can the cattle be safely wintered there without shelter?

A. It has been demonstrated for many years that small herds of cattle can be safely wintered out of doors, and in fact found fat and almost ready for butchering in the spring. So far it is but an experiment as to whether large herds, such as we have sent into the country, can be safely wintered without shelter, as in Colorado. My own impression, however, is, that if properly looked after by the herders, they can be.

Q. Of what nature are the grasses in that country?

A. The principal grass is what is commonly known as bunch grass, which grows luxuriantly on the rolling lands around the Foot Hills. It covers the soil like a thick mat, and affords excellent grazing. In many places the wild vetch is also found. This grass makes excellent food for cattle, especially in summer. On the lower and more moist lands is to be found another nutritious grass, called blue-joint grass; which somewhat resembles English rye-grass. On the higher lands wild timothy grows also, but not to any great extent.

Q. You do not anticipate any danger from drouth, then?

A. None at all. Owing to its proximity to the Rocky Mountains, where the rainfall is heavy, the country is thoroughly watered. The streams in the vicinity are quite numerous.

Q. Is the enterprise likely to prove profitable?

A. By careful management I think it can be made profitable.

Q. What are the prospects for markets?

A. At present, and probably for the next few years, there will be a fair local demand by settlers coming into the country, and by the Government for the Indians and mounted police. But the market for the surplus cattle of such a large ranche is as yet in prospect, and will depend on the settlement of the country.

Q. You think, then, that ranche cattle cannot be exported profitably?

A. It has not yet been found that grass-fed cattle can be transported long distances and stand a sea voyage. They are found to diminish in flesh very rapidly.

Q. Where were your cattle obtained?

A. Excepting those imported from England, the cattle were purchased in Montana.

Q. Is there no danger of blizzards or destructive storms in that section?

A. In the vicinity of Fort M'Leod violent storms are frequently experienced; they seldom occur further north in the Bow River region.

Montreal Herald.

THE GREAT NORTH-WEST.

A Glowing Picture from a United States Critic.

CAPABILITIES OF THE 'LONE LAND.'

(From the 'Weekly Mail,' October 27, 1881.)

BUFFALO, N.Y., October 21.

THE New York *Post* of yesterday, in an article in review of a work just issued from the pen of Mr Fraser Rae, entitled 'Newfoundland to Manitoba,' quotes from the work as follows:—

'The settlement of Manitoba, the construction of the Pacific Railway, the opening of steam navigation through Hudson Bay to Europe, are elements of the greatest moment in determining the destiny of Canada. It is clear to my mind that the future of Canada is in the hands of Canadians. Should they fail in making it what it may become, the fault will be their own, and not that of their magnificent Far-West.'

The *Post's* critique says:—'The author takes a very just view of the resources of the vast region between Lake Winnipeg and the Rocky Mountains, discarding equally the rose-coloured pictures of the railway land agents and gloomy predictions of the Hudson Bay officials. In fact the valleys are unsurpassed for wheat growing; the borders of the Rocky Mountains, the former home of millions of buffaloes, afford excellent grazing; there are extensive beds of lignite, nearly equal in value to coal, and iron ores have lately been discovered which give great promise. It is estimated, without exaggeration, that the whole region can support on the average 100 inhabitants to the square mile, or 200,000,000 in all. Its future depends entirely upon the Canadian Pacific Railway, and the other roads which will follow it. It can grow enough wheat to feed all Europe, and with transportation by rail to Hudson Bay, and thence by steamer, wheat can be placed in Liverpool at 28s. a quarter, with the same profit that is now obtained from United States wheat at 48s. Should that day arrive, the British farmer must renounce growing wheat, and the present struggle between British and United States farmers will give place to one between Canada and the United States.'

The critique concludes that 'the recent journey of Lord Lorne will probably give an increased impetus to the Pacific Railway and Canadian immigration.'

HUDSON'S BAY ROUTE.

Canadian North-West Territory.

(From the 'Colonial Farmer,' October 31, 1881.)

To the student of the map of the Dominion of Canada the most conspicuous feature which presents itself is the great inland sea of Hudson's Bay, which is about 1000 miles long, and has an area of 500,000 square miles. Part of the vast region draining itself into the bay is barren, but there are immense tracts of land, especially to the west, with a very fertile soil, and a climate suitable to the growth of all kinds of cereals and root crops. On this side, the Nelson, which has a course of about 500 miles, is the longest of all the rivers which flow into the bay, the second in point of importance being the Churchill. Hudson's Strait, by which the bay is connected with the Atlantic Ocean, varies in breadth from 45 to 100 miles, and the chief danger to be apprehended in passing through it is the stream of ice which floats by the entrance at certain seasons of the year. It is this difficulty in the way of the navigation of those waters which constitute the chief obstacle to the establishment of the route *via* Hudson's Bay to the North-West of Canada, for which the Nelson Valley Railway and Transportation Company of Montreal obtained a charter from the Canadian Parliament in the spring of last year. This charter gives the company power to construct a railway from Churchill Harbour, which is situate at a central point on the western coast of Hudson's Bay, to the foot of Lake Winnipeg, with a branch southward to connect the proposed route with the Canadian Pacific Railway. The route has the great advantage of being the shortest and most direct from Liverpool to the North-West territories of Canada, the distance by it from Liverpool to Churchill Harbour being only about 2926 miles, while to Montreal *via* Cape Race it is 2990 miles, and to New York *via* Cape Clear 3040 miles, showing a difference in favour of the Hudson's Bay route as compared with the Montreal of 64 miles, and with that *via* New York of 114 miles.

The claims of Churchill Harbour to notice on this and other grounds seem to have attracted the attention of General Sir H. Lefroy, who is a well-known authority on matters relating to the Dominion, and who, speaking in his capacity of President of the Geographical Section of the British Association at Swansea last year, referred to Churchill as destined to become the future shipping

port for the agricultural products of the vast North-West territory, and the route by which immigrants would enter the country. Those who take a similar view, and are interested in the success of the new route, have naturally sought to place its advantages in the most favourable light before the public, whose attention is invited to the resources of Hudson's Bay itself, and of the country by which it is immediately surrounded. The trade in furs, which has hitherto constituted the principal business in that part of the world, is duly adverted to, while its fish and mineral resources are spoken of as being large and important. But it is on the great advantage likely to result from the establishment of a seaport, in the very heart of the country, more than 1500 miles nearer than Quebec to the centre of the North-West territory, that stress is chiefly laid. Churchill Harbour, it is pointed out, is only 400 miles from the edge of the greatest wheat field in the world, or not so far as from Quebec to Toronto. The lands, it is added, of the North-West capable of supporting an agricultural population, exceed 200,000,000 acres in extent. This is the country which Lord Lorne has recently traversed, and of which the correspondent of the *Times*, who accompanied the Governor-General, has written such interesting descriptions. It is hoped that the heavy freight, not only of this vast region, but of portions of the United States to the south of it, would find its way by the proposed route to the markets of the world. In justification of this hope, mention is made of the fact that the distance of the central part of the agriculture lands of the North-West territory to Churchill Harbour is about the same as to the city of Winnipeg, and that as the sea voyage from the former place to Liverpool is rather shorter than from Montreal to Liverpool, the whole distance from Winnipeg to Montreal—which by way of Lake Superior is 1291 miles, and by way of Chicago 1698 miles—would be saved by the adoption of the Hudson's Bay Route, so that a consignment of grain or beef sent from the Saskatchewan or Peace River districts by way of Churchill, might reach Liverpool as soon as it could arrive in Montreal if sent by the St Lawrence Route.

In the comparatively new business of exporting live stock to Europe from the North-West of Canada, it is also contended that the Hudson's Bay Route ought to play an important part, seeing that the animals might, by the great system of inland navigation formed by the rivers and lakes of the Winnipeg basin, be easily taken to the head of the Nelson Valley, from which they might be driven along a common road to Churchill Harbour. To immigrants to the North-

Western districts, the inducements held out by the advocates of the new route are the saving of time and money which would result to them from its selection, and that the tide of this immigration will be very great in the near future is by many sanguinely anticipated. That the proposed route has the advantage of being shorter and more direct than any of those at present existing between these islands and the North-West of Canada a glance at the map will serve at once to show. The chief objection to it, as already indicated, is the limited period of the year during which the navigation of Hudson's Strait is practicable. On that point, however, no information which can be regarded as at all conclusive has yet been procured. The experience of sailing vessels, of which since its discovery 730 have made voyages into the Bay, presents on the whole a tolerably favourable record, very few of them having been lost. The land all along both sides of the Strait is said to be high and bold, rising in places to a height of 1000 feet and upwards. A few signal stations, it is suggested, might be constructed on these heights, so that vessels might by means of the telegraph be informed of the position of drifting ice in their passage through the Strait. By that means it is hoped that steam vessels might be able to find their way through the Strait without much difficulty during a period of at least four months in the year—from June to October. The portion of the Bay through which the new route would lie is described as being entirely free from shoals and rocks; while the Harbour of Churchill, which is just at the mouth of the Churchill River, presents a perfectly unobstructed approach from the open sea. Such are the principal features connected with a route the progress of which can scarcely fail to be regarded with deep interest by numbers of persons in Canada as well as in this country.

'Liverpool Mercury,' November 14, 1881.

ANYTHING that promises to facilitate our communication with the great Western Continent must interest this community, and a proposed new route by Hudson's Bay and Straits to the north-west of North America will naturally arrest our attention. The Nelson Valley Railway and Transportation Company of Montréal has now obtained a charter—the result of long agitation; and during the present and past seasons they have had a corps of surveyors engaged in laying out a railway from Lake Winnipeg to the Harbour of Churchill on Hudson's Bay, who have reported that the proposed line by that

route is practicable and easy of construction. The promoters—who perhaps are a little too sanguine—point out that Churchill Harbour is excellent, and available for vessels drawing thirty feet of water, without the necessity of further outlay than will be required for the construction of wharves. This proposal to form a great seaport at the mouth of the Churchill River, which flows into Hudson's Bay at the western extremity, must command attention from the obvious advantages which it presents. Apart from the fact that it is under the British flag, it will be observed that the port of Churchill stands in the very centre of the American continent, half-way between the Atlantic and Pacific Oceans, and within a comparatively short distance of the great wheat and cattle-raising territories of Canada and the United States. One of the smallest advantages of the proposed route is that the voyage from Liverpool to Churchill is 64 miles shorter than to Montreal, and 114 miles shorter than to New York. It has hitherto been accepted generally, that the extensive region draining into Hudson's Bay was a barren and sterile country; but—as has been pointed out by the Nelson Valley Company—there are vast tracts of it which possess a very fertile soil, and a climate suitable for the growth of all kinds of cereals and root crops. The railway proposed to be constructed, would run round the northern shore of Lake Winnipeg, and would strike the line between the Red River and the Missouri, commanding the centre of the grain-growing districts of the United States, as well as the centre of the Hudson's Bay territory itself, the resources of which are practically inexhaustible. By the new route, it is expected that we could have corn and other agricultural produce earlier and cheaper than by the existing lines. The most prominent advantage, however, which we should derive from the opening of the new route, would be from the development of the Hudson's Bay territory itself. The minerals, fisheries, and timber of that vast land are almost unknown to European capitalists, and present a field which promises an abundant harvest to those who will cultivate it.

'Toronto Globe,' December 22, 1881.

HUDSON BAY ROUTE.

What Prof. Bell of the Geological Survey says about It.

NEW OUTLET FOR THE NORTH-WEST.

THE NELSON RIVER VALLEY A GRAIN-GROWING REGION.

The Railway to Hudson Bay being rapidly pushed forward—A Fine Harbour and a Magnificent Military Ruin—Coal, Iron, Gold, and Silver on the Coast—Magnitude of the Nelson River.

To the North-West Territory, and, therefore, to the whole Dominion—for in the North-West lies our hope of population and power—the question of the practicability of the Hudson Bay route to England is of vast importance. If this route be not available the future grain fields of the Upper Saskatchewan and of the Peace River will be as far removed from Liverpool as are New Mexico and Arizona, a fact which, despite all the railway communications which an even untrammelled railway policy could provide, will detract very materially from their value as agricultural lands. Of course the extraordinary productiveness of the soil will still leave the farmer in those distant regions a profitable business, but an available route *via* Hudson Bay would bring out far North-West from one or two thousand miles nearer market than by the St Lawrence route, and by the freight for that distance increase the value of every bushel he sells. This being the case, every item of information regarding the Hudson Bay route is worthy of attention, and it is satisfactory to find that Professor Bell of the Geological Survey, who has spent several summers in surveying almost the entire coast of that vast inland sea, and the interior contiguous to it, and has made an autumn voyage through the Straits to England, is decidedly of opinion that the Hudson Bay route will be found commercially an exceedingly valuable one. During a visit of the Professor to Toronto the other day he was interviewed on the subject. The substance of the information elicited during this interview is here given, and will be found interesting.

RAILWAY PROSPECTS IN THE NELSON VALLEY.

'Do you think that either of the schemes for building a railway from Lake Winnipeg to Hudson Bay will be carried out at an early day?

'I do think that within a few years a railway will be built from near Norway House, on Lake Winnipeg, to Fort Churchill. The Nelson River Railway Company is a strong one, including such men as Senator Ryan, Peter Redpath, George Drummond, Duncan M'Intyre, and several other leading Canadian and Scotch capitalists. They are in evident earnest, and although saying little about what they are doing, they are pushing the survey with great energy. Their engineer, Mr G. A. Bayne, of Winnipeg, has surveyed the whole route from Churchill to Norway House, and during the past summer has, with a large party of men, cleared a way through the forest, from Lake Winnipeg northwards, and actually located the line for a distance of about one hundred miles. He went over the whole route three times in making the preliminary survey. There is no doubt that the company will push on the road as rapidly as possible, and, perhaps have the work of construction commenced within two years. There is, as you know, another railway company also projecting a line, though I think they have not done so much. The Nelson River line is to run along the west side of the Nelson River to where that river bends to the east on its way to Hudson Bay. The line then angles across to the east side of the Churchill River, which it follows north-easterly to Churchill Harbour. The route is nearly a straight line from one terminus to the other, and is about 300 miles in length.'

THE CHURCHILL AND NELSON RIVERS.

'Do you know anything personally about the character of the country through which the road is to run?'

'Yes; I have traversed the Nelson River twice from its head to its mouth, making a survey of it, and have also explored much of the neighbouring country. Nelson River is a mighty stream, of four times the volume of the Ottawa. It is very irregular in width, and frequently separates into several channels. In some places it expands to a width of several miles. Generally the stream is quite deep and enclosed by steep banks of clay. It is broken very much by falls and rapids, but there are long navigable stretches at intervals along its course. For forty miles from Lake Winnipeg there are no obstructions to large vessels. Then comes a long break, followed by 170 miles of good navigation, with only one interruption, a sudden fall of several feet from smooth water above to smooth water below. With machinery on the edge of this fall it would be easy to hoist goods from a boat below the fall to one above, so short is the dis-

ance and so smooth the water. Below this long stretch of navigation is an exceedingly rough piece of river, below which to the bay there is another navigable stretch of between forty and fifty miles.

The Churchill River, flowing from its upper course to the west, approaches within fifty miles of the Nelson, and then turns gradually away till at its mouth it is about seventy miles distant from the mouth of the latter. The Churchill is a fine stream, larger than the Rhine, but not quite so large as the Ottawa. It is not so picturesque in its lower course, at least, as the Nelson. The intervening country, and in fact the whole valley of the Nelson, is almost as level as a prairie, and the railway could be built over much of the route almost by laying the sleepers on the sod. There is no engineering difficulty, and as the line crosses neither river nor any very large streams, there will be little expense for bridging.

CHURCHILL'S SPLENDID HARBOUR.

Churchill Harbour is the finest on Hudson Bay, and one of the best in the world. It is about eight miles in length by two to three in breadth. The Churchill River flows in at the southern end, where for several miles, except in the current of the river, the water is too shallow for ocean vessels. The lower part of the harbour is, however, from six to twelve fathoms deep. A rocky ridge runs along the shore of Hudson Bay for some distance, and through a deep, half-mile wide opening through this ridge the entrance to the harbour is effected. The shore line of the harbour then curves eastward, leaving the narrow ridge between it and the bay, forming a good shelter for a port. On the bluff at the outer end and western side of the entrance are the most magnificent military ruins on the continent, Fort Prince of Wales. This forms an immense quadrangle, the sides of which measure 300 feet. The walls are twenty feet high, and between twenty and thirty feet thick, while in the enclosed place there are military provisions, which must have made the fort an exceedingly formidable one. It was taken in 1782 by the French under La Perouse, who, with a man-of-war and two frigates, laid siege to it. There were only a few men to defend it from this unexpected attack, and the fort surrendered. La Perouse spiked the guns, broke the pins on which they swung, undermined and blew up thirty feet or more of the wall, and did other damage, for which, at the close of the war, the British Government sent in a nice little bill for the French to settle. The harbour is open for between six and seven months every year, and is easily approached.

IMMENSE MINERAL WEALTH.

'Of what commercial value is Hudson Bay and its coasts ?'

'The Bay itself yields large quantities of finely flavoured fish, and on many parts of the coast there are indications of mineral riches. The western coast, i.e., the East Main territory, abounds in a great variety of minerals. There are good beds of anthracite. Iron is present apparently in large quantities. There are also fine indications of gold, silver, copper, lead, tin, and manganese.'

HUDSON STRAITS.

'Will you give me your opinion regarding Hudson Straits as a channel for trade? How long are they navigable?'

'I have taken much pains to find out as much as I can regarding them. They have thus far been traversed only by sailing vessels, of which over seven hundred have passed through them to Churchill and York, and nearly all in safety. These voyages, however, have been confined to a few months in summer and autumn, so that there is much yet to learn regarding the length of the period of navigation even for sailing vessels. I passed through the Straits a few years ago in September and October on a voyage to England, and I saw scarcely any ice. A considerable quantity of ice unquestionably flows through them outwards into the Atlantic, but little of it is Hudson Bay ice. On Hudson Bay the water freezes several miles from the shore, but this shore ice melts in spring along the coasts, or is driven by the prevailing north winds of spring into James' Bay to melt there.'

NO ICEBERGS.

There are no icebergs passing through the Straits, for there are no high lands in the Arctic islands north of the Bay on which glaciers could form. There is, however, a large quantity of floe ice formed in Fox Channel, which opens into Hudson Bay and Straits from the north, and the ice which impedes navigation mostly comes from that channel and the narrow waters opening into it. Fox Channel is a body of water about as large as Lakes Superior and Michigan combined, and probably freezes over most of its surface in winter. Hudson Strait freezes over at no time in the year, as far as I can learn from the Esquimaux. At its very narrowest point it is forty-five miles wide, and a tide varying from twenty-five to forty

feet in height flows through it. This should, in its comparatively low latitude, effectually prevent ice forming across the Strait. The Esquimaux have made many attempts to cross in winter and spring, but have rarely succeeded. When they have succeeded it has been by getting upon floes and floating around in the ebb and flow of the tide, or in the drift current produced by the wind, till the neighbourhood of another floe has permitted of gaining a further advance towards the opposite shore. The chief difficulty in navigation is when the Fox Channel ice flows outward in June in very large quantities, and I rather think that before that ice comes down, there is a period during which sailing vessels could get through, especially if aided by signal stations on shore, connected by telegraph. These stations could warn vessels of where the ice-floes are located.

NAVIGABLE THE WHOLE YEAR ROUND.

I think it is probable that steamers could make their way through the Straits the whole year round, but of course such voyages would do no good during the five to six months of the year in which the Hudson Bay harbours are closed. For ordinary sailing vessels, the known period of navigation is from the end of June till the beginning of November. Steamers could unquestionably pass for a longer period. The Straits are very deep and are free from rocks and shoals, as is also Hudson Bay, except along some parts of the shore.

MANITOBA AS NEAR EUROPE AS MICHIGAN.

I consider the Hudson Bay route decidedly practicable, and have no doubt whatever that it will be a most important channel of trade between the grain fields of the North-West and the Mother Country. Return cargoes would include the usual importations and large quantities of coal and iron, the freight on which would be low on account of the cheapness of the long water-carriage.

The distance from Churchill Harbour to Liverpool *via* Hudson Straits is 2926 miles; while from Montreal to Liverpool it is 2990, and from New York to Liverpool 3040 miles. Churchill is, then, 64 miles nearer Liverpool than Montreal, and 114 miles nearer New York. Lake Winnipeg is consequently brought nearer Liverpool than Toronto, and northern Minnesota and Manitoba as near as Michigan. The effect of this in developing the wheat fields of the North-West, where a further advantage exists of an immensely

greater yield per acre than in old Canada or the Western States, cannot fail to be very great.

The question as to how many months in the year may be depended on for navigation by the Hudson's Bay Route, can only be settled by practical experiments, which will doubtless be commenced during the coming season.

Of the favourable conditions of climate and the abundance of good pasture for stock-raising in a limited area in the North-West, there is a uniform and universal testimony.

I have made an application for 100,000 acres of grazing lands, which I intend occupying as soon as practicable. Subjoined is a copy of an official letter from the Department of the Interior :—

Copy of a LETTER from the Minister of the Interior.

DEPARTMENT OF THE INTERIOR, CANADA,
OTTAWA, 5th September 1881.

To JOHN R. CRAIG, Esq.,
Brampton, Ontario, Canada.

SIR,—I have the honour, by direction of the Acting Minister of the Interior, to acknowledge the receipt of your letter of the 3d instant, applying on behalf of a company for a tract of land, amounting to 100,000 acres, in the North-Western Territories, to be used for the purpose of grazing horses, cattle and sheep, stating that the capital of the company will be 500,000 dollars, £100,000, to be principally obtained from Great Britain; and setting forth generally the aims and objects of the Association.

In reply, I am to state that the Acting Minister is gratified to learn of your enterprise, which is of a character that the Government is disposed to encourage in every way consistent with rule; and I am further directed to enclose to you a copy of the Regulations of the 25th May, last, clauses 16 to 21 of which inclusive will inform you of the conditions under which grazing grounds in the North-West Territories are to be acquired.

The Acting Minister wishes me to say that, on receipt of an application from your company for any definite location, which does not interfere with rights previously acquired, he is disposed to give it his favourable consideration.—I have the honour to be, Sir, your obedient servant,

LINDSAY RUSSELL,
Acting Deputy of the Minister of the Interior.